Type: Invited Presentation

Final Abstract Number: 34.003
Session: Towards Cholera Elimination: A New Era for an Integrated Strategy
Date: Saturday, April 5, 2014
Time: 10:15-12:15
Room: Room Roof Terrace

Cholera vaccination: How and when to use it

D. Sack

Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA

After nearly three decades of research with killed oral cholera vaccine (OCV), in 2010 the World Health Organization revised recommendations regarding the use of OCV to state,[1] "Given the availability of two oral cholera vaccines and data on their efficacy, field effectiveness, feasibility and acceptance in cholera-affected populations, immunization with these vaccines should be used in conjunction with other prevention and control strategies in areas where the disease is endemic and should be considered in areas at risk for outbreaks." Then in 2013 an OCV stockpile was developed (http://www.who.int/cholera/vaccines/ocv_stockpile_2013/en/), and GAVI decided to provide additional funding for OCV.

Clearly OCV is now one of the tools to be used for controlling cholera. When OCV is provided to vulnerable people without safe water who often also lack medical care, OCV becomes a life-saving vaccine. Still there continues to be uncertainty in knowing when and where to implement OCV campaigns. Even if funds were available to pay for the vaccine (3.70 USD/immunized person), the available supply is limited. Thus, the international community is now learning how and when to use OCV and how to integrate it with other cholera control interventions. Some lessons are however becoming clear. The vaccine is safe and acceptable; it lowers the risk of cholera by about 65-70%; protection continues for 3 to 5 years; and when coverage is high, it induces herd protection. In addition, when incidence is high (>1/1000), it is likely to be cost effective and potentially cost saving.

Currently, the stockpile targets use of the vaccine to emergency situations, such as unexpected epidemics, where there is hope that the rapid use of vaccine can abort the outbreak. However, computer models clearly demonstrate that OCV can reduce cholera's burden in endemic areas with predictable cholera seasons. The specific strategies for its use, age groups to target, and precise methods for OCV campaigns are still being evaluated.

This presentation will discuss the different scenarios when OCV might be considered and will provide a framework for understanding when and where OCV will be especially beneficial. Additional guidance for use of OCV is found at www.stopcholera.org and http://www.who.int/cholera/vaccines/ocv_stockpile_2013/en/

http://dx.doi.org/10.1016/j.ijid.2014.03.570

Type: Invited Presentation

Final Abstract Number: 34.004
Session: Towards Cholera Elimination: A New Era for an Integrated Strategy
Date: Saturday, April 5, 2014
Time: 10:15-12:15
Room: Room Roof Terrace

Guidance for effective elimination of cholera epidemics in a sustainable manner in the Democratic Republic of Congo and other high risk countries

F. Haaser

Veolia Environment Foundation, Nanterre, France

In a re-emerging context of cholera worldwide, especially in Africa, a replicable approach has been developed by governmental, non-governmental and international organisations in the Democratic Republic of Congo, with the support of the Veolia Environnement Foundation. The developed methodology integrates epidemiology studies with water, sanitation and hygiene studies. It consists in effectively eliminating cholera and other waterborne diseases by securing and reinforcing access to potable water, effective sanitation services and hygiene education. A Geographical Information System is used to combine the results of epidemiology studies with water, sanitation and hygiene diagnosis, to establish a scientifically-based cholera hotspots mapping, and identify at risk populations in each of the hotspots. In the D.R.C., the epidemiology studies led to the identification of 8 "hotspots" of cholera emergence in the Eastern part of the country, in the Great Lakes Region, in which preventive actions are being focused. On the long run, preventive interventions are expected to significantly decrease cholera and other waterborne diseases incidence, by increasing access to safe water and reducing unsafe water use for instance. Indeed, more reliable and close water access will encourage better hygiene practices in the households, and will help saving time for women and children generally involved in the water collection. The impact is consequently expected to be broad: sanitary, social and economic. The approach goes far beyond the traditional emergency medical response to cholera epidemics. It is being implemented in the D.R.C. to change the traditional cholera response paradigm from treatment to prevention. Based on the case study being held in the D.R.C., the Global Alliance Against Cholera (G.A.A.C. – www.choleraalliance.org) was created in 2010, bringing together international private and public stakeholders, recognised as experts in the fields of Cholera, Health, Water, Sanitation and Hygiene. The main objective of the Alliance is to advocate for the sustainable multisectoral approach adopted in the D.R.C., at an international level and that can serve as a model for other areas and communities affected by the disease. The G.A.A.C. also works on strategies to better integrate the common approach into affected countries' national policies, in order to sustainably eliminate this scourge.

http://dx.doi.org/10.1016/j.ijid.2014.03.571